

(1) to conduct a feasibility study, including a study of exploration, geochemical testing, geomagnetic surveys, geologic information gathering, baseline environmental studies, well drilling, resource characterization, permitting, and economic analysis;

(2) for design and engineering costs, relating to the project; and

(3) to demonstrate and promote commercial application of technologies related to geothermal energy as part of the project.

(d) Cost sharing

The cost-sharing requirements of section 16352 of this title shall apply to any project carried out under this section.

(e) Authorization of appropriations

There are authorized to be appropriated such sums as are necessary to carry out this section.

(Pub. L. 110-140, title VI, §625, Dec. 19, 2007, 121 Stat. 1685.)

PART C—MARINE AND HYDROKINETIC RENEWABLE ENERGY TECHNOLOGIES

§ 17211. Definition

For purposes of this part, the term “marine and hydrokinetic renewable energy” means electrical energy from—

(1) waves, tides, and currents in oceans, estuaries, and tidal areas;

(2) free flowing water in rivers, lakes, and streams;

(3) free flowing water in man-made channels; and

(4) differentials in ocean temperature (ocean thermal energy conversion).

The term “marine and hydrokinetic renewable energy” does not include energy from any source that uses a dam, diversionary structure, or impoundment for electric power purposes.

(Pub. L. 110-140, title VI, §632, Dec. 19, 2007, 121 Stat. 1686.)

SHORT TITLE

This part known as the “Marine and Hydrokinetic Renewable Energy Research and Development Act”, see Short Title note set out under section 17001 of this title.

§ 17212. Marine and hydrokinetic renewable energy research and development

(a) In general

The Secretary, in consultation with the Secretary of the Interior and the Secretary of Commerce, acting through the Under Secretary of Commerce for Oceans and Atmosphere, shall establish a program of research, development, demonstration, and commercial application to expand marine and hydrokinetic renewable energy production, including programs to—

(1) study and compare existing marine and hydrokinetic renewable energy technologies;

(2) research, develop, and demonstrate marine and hydrokinetic renewable energy systems and technologies;

(3) reduce the manufacturing and operation costs of marine and hydrokinetic renewable energy technologies;

(4) investigate efficient and reliable integration with the utility grid and intermittency issues;

(5) advance wave forecasting technologies;

(6) conduct experimental and numerical modeling for optimization of marine energy conversion devices and arrays;

(7) increase the reliability and survivability of marine and hydrokinetic renewable energy technologies, including development of corrosive-resistant materials;

(8) identify, in conjunction with the Secretary of Commerce, acting through the Under Secretary of Commerce for Oceans and Atmosphere, and other Federal agencies as appropriate, the potential environmental impacts, including potential impacts on fisheries and other marine resources, of marine and hydrokinetic renewable energy technologies, measures to prevent adverse impacts, and technologies and other means available for monitoring and determining environmental impacts;

(9) identify, in conjunction with the Secretary of the Department in which the United States Coast Guard is operating, acting through the Commandant of the United States Coast Guard, the potential navigational impacts of marine and hydrokinetic renewable energy technologies and measures to prevent adverse impacts on navigation;

(10) develop power measurement standards for marine and hydrokinetic renewable energy;

(11) develop identification standards for marine and hydrokinetic renewable energy devices;

(12) address standards development, demonstration, and technology transfer for advanced systems engineering and system integration methods to identify critical interfaces;

(13) identifying¹ opportunities for cross fertilization and development of economies of scale between other renewable sources and marine and hydrokinetic renewable energy sources; and

(14) providing² public information and opportunity for public comment concerning all technologies.

(b) Report

Not later than 18 months after December 19, 2007, the Secretary, in conjunction with the Secretary of Commerce, acting through the Undersecretary of Commerce for Oceans and Atmosphere, and the Secretary of the Interior, shall provide to the Congress a report that addresses—

(1) the potential environmental impacts, including impacts to fisheries and marine resources, of marine and hydrokinetic renewable energy technologies;

(2) options to prevent adverse environmental impacts;

(3) the potential role of monitoring and adaptive management in identifying and addressing any adverse environmental impacts; and

¹ So in original. Probably should be “identify”.

² So in original. Probably should be “provide”.